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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/775,455	02/02/2001	Yasuo Ishihara	54399039	1570

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EXAMINER	
NGUYEN, PHUNG	
ART UNIT	**PAPER NUMBER**
2632	

DATE MAILED: 06/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/775,455	ISHIHARA ET AL.	
	Examiner	Art Unit	
	Phung T Nguyen	2632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,5,9,11-14,17-28,32,34,37-39,42-45,48,49,53-55 and 57* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,5,9,11-14,17-28,32,34,37-39,42-45,48,49,53-55 and 57* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 4, 5, 11, 13, 14, 18-28, 34, 38, 39, 42-45, 49, 53-55, and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crook (U.S. Pat. 5,142,478) in view of Bateman et al. (U.S. Pat. 5,220,322).

Regarding claim 1: Crook discloses computerized aircraft landing and takeoff system comprising the steps of estimating a deceleration required to stop the aircraft on a runway; comparing the deceleration to the a maximum deceleration of the aircraft; and asserting a signal when the deceleration is greater than the maximum deceleration (figure 2, col. 2, lines 4-14, and col. 3, lines 26-28). Crook teaches putting the aircraft into the go-around mode for another attempt at a landing if the landing is unsafe (col. 2, lines 64-68) but does not specifically disclose an alert signal when the landing is unsafe. However, Bateman et al. disclose ground proximity warning system for use with aircraft having egraded performance comprising an alert signal if the landing is unsafe. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the teaching of Bateman et al. in the system of Crook because they both teach a device relates to the field of aircraft ground proximity warning system. The teaching of generating an alert signal when the landing is unsafe of Bateman et al. would

enhance the system of Crook by providing the pilot an indication as to what should be done to recover from a dangerous situation.

Regarding claim 4: Crook teaches wherein the step of commanding an autopilot go-around when the computer 14 determines that the landing is unsafe (col. 2, lines 61-62, and col. 3, lines 23-32).

Regarding claim 5: All the claimed subject matter is already discussed in respect to claims 1 and 4 above.

Regarding claim 11: Refer to claim 4 above.

Regarding claim 13: All the claimed subject matter is already discussed in respect to claim 1 above. Crook inherently teaches the plurality of parameters including runway length (col. 2, lines 9-14).

Regarding claim 14: Crook teaches monitoring a deceleration required to stop the aircraft (col. 3, lines 3-22).

Regarding claim 18: Refer to claim 4 above.

Regarding claim 19: All the claimed subject matter is already discussed in respect to claim 1 above. Crook teaches the computer readable storage medium having computer readable program code (col. 2, lines 61-64).

Regarding claim 20: Refer to claim 4 above.

Regarding claim 21: All the claimed subject matter is already discussed in respect to claim 5 above.

Regarding claim 22: Refer to claim 4 above.

Regarding claim 23: All the claimed subject matter is already discussed in respect to claim 19 above. Crook inherently teaches the plurality of parameters including runway length (col. 2, lines 9-14).

Regarding claim 24: Refer to claim 4 above.

Regarding claim 25: All the claimed subject matter is already discussed in respect to claims 21 and 22 above.

Regarding claim 26: Bateman et al. disclose an Enhanced Ground Proximity Warning computer (col. 2, lines 20-24).

Regarding claim 27: Bateman et al. disclose the alert signal includes signal useful for driving a display (col. 9, lines 55-58).

Regarding claim 28: Bateman et al. disclose the alert signal includes an aural alert signal (col. 4, lines 11-13).

Regarding claim 34: Refer to claim 4 above.

Regarding claim 38: All the claimed subject matter is already discussed in respect to claims 13 and 25 above.

Regarding claim 39: Crook teaches a deceleration required to stop the aircraft (col. 2, line 68, and col. 3, lines 1-5).

Regarding claim 42: Refer to claim 26 above.

Regarding claim 43: Refer to claim 27 above.

Regarding claim 44: Refer to claim 28 above.

Regarding claim 45: Refer to claim 4 above.

Regarding claim 49: All the claimed subject matter is already discussed in respect to claims 1 and 25 above.

Regarding claim 53: Refer to claim 4 above.

Regarding claim 54: Bateman et al. disclose the alert signal includes signal useful for driving a display (col. 9, lines 55-58).

Regarding claim 55: Bateman et al. disclose the alert signal includes an aural alert signal (col. 4, lines 11-13).

Regarding claim 57: Bateman et al. disclose an Enhanced Ground Proximity Warning computer (col. 2, lines 20-24).

3. Claims 9, 12, 17, 32, 37, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Crook in view of Bateman et al. and further in view of Muller et al. (U.S. Pat. 5,839,080).

Regarding claim 9: Bateman et al. and Crook do not directly teach the step of monitoring a plurality of parameters includes the step of monitoring a position of the aircraft. However, the use of Global positioning system (GPS) to indicate the current position and projected flight path of the aircraft is old and well known in the art as taught by Muller et al. (col. 5, lines 26-39). Therefore, it would have been obvious to the skilled artisan to use the GPS of Muller et al. in the system of the combination so that the position of the aircraft is accurately monitored.

Regarding claim 12: Bateman et al. and Crook teach asserting a go-around warning signal when the value exceeds the predetermined threshold amount but do not teach a caution

alert signal when the value exceeds a first threshold amount and a warning signal when the value exceeds the second threshold amount. However, Muller et al. teach a pair of alert envelopes, a caution envelope (yellow alert) and a warning envelope (red alert) as seen in figure 17, col. 9, lines 6-10. Therefore, it would have been obvious to the skilled artisan to combine the teachings of Bateman et al., Crook, and Muller et al. in order to provide an alert signal based upon the type of alert that is provided, i.e., a less severe cautionary alert or a more severe warning alert.

Regarding claim 17: Refer to claim 12 above.

Regarding claim 32: Refer to claim 9 above.

Regarding claim 37: Crook and Bateman et al. do not show the parameters include terrain data. However, Muller et al. disclose the terrain database 24 to provide varying resolutions of terrain data as a function of the topography of the terrain (col. 6, lines 7-48). Therefore, it would have been obvious to one of ordinary skill in the art to employ the teaching of Muller et al. in the system of the combination in order to provide information relating to geographical areas such as mountainous areas and areas in the vicinity of an airport which is an advantage.

Regarding claim 48: Refer to claim 37 above.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. LaMay et al. [U.S. Pat. 5,377,937] disclose aircraft flare control system utilizing an envelope limiter.

b. Coquin et al. [U.S. Pat. 5,668,541] disclose a system for deriving an anomaly signal during the take-off of an aircraft.

c. Johnson et al. [U.S. Pat. 6,600,977] disclose glideslope monitor for aircraft.

d. Rennie [U.S. Pat. 3,786,505] discloses a self-contained navigation system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phung T Nguyen whose telephone number is 703-308-6252. The examiner can normally be reached on 8:00am-5:30pm Mon thru. Friday, with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 703-308-6730. The fax numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-308-9051 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Examiner: Phung Nguyen

Date: June 4, 2004